

Integrin $\beta 3$ (N-20): sc-6627

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16 α and 8 β subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind ligands that are components of the extracellular matrix, including Fibronectin, Collagen and Vitronectin. Certain integrins can also bind to soluble ligands such as Fibrinogen, or to counter receptors on adjacent cells such as the intracellular adhesion molecules (ICAMs), leading to aggregation of cells. Ligands serve to cross-link or cluster integrins by binding to adjacent integrin receptors; both receptor clustering and ligand occupancy are necessary for the activation of integrin-mediated responses. In addition to mediating cell adhesion and cytoskeletal organization, integrins function as signaling receptors. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis.

CHROMOSOMAL LOCATION

Genetic locus: ITGB3 (human) mapping to 17q21.32; Itgb3 (mouse) mapping to 11 E1.

SOURCE

Integrin $\beta 3$ (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Integrin $\beta 3$ of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6627 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin $\beta 3$ (N-20) is recommended for detection of Integrin $\beta 3$ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Integrin $\beta 3$ (N-20) is also recommended for detection of Integrin $\beta 3$ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Integrin $\beta 3$ siRNA (h): sc-29375, Integrin $\beta 3$ siRNA (m): sc-35677, Integrin $\beta 3$ siRNA (r): sc-63292, Integrin $\beta 3$ shRNA Plasmid (h): sc-29375-SH, Integrin $\beta 3$ shRNA Plasmid (m): sc-35677-SH, Integrin $\beta 3$ shRNA Plasmid (r): sc-63292-SH, Integrin $\beta 3$ shRNA (h) Lentiviral Particles: sc-29375-V, Integrin $\beta 3$ shRNA (m) Lentiviral Particles: sc-35677-V and Integrin $\beta 3$ shRNA (r) Lentiviral Particles: sc-63292-V.

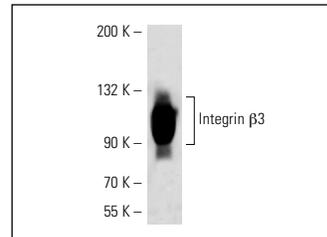
Molecular Weight of Integrin $\beta 3$: 125 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, human platelet whole cell lysate: sc-363773 or mouse PBL tissue extract.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Integrin $\beta 3$ (N-20): sc-6627. Western blot analysis of Integrin $\beta 3$ expression in mouse PBL tissue extract.

SELECT PRODUCT CITATIONS

1. Azam, M., et al. 2001. Disruption of the mouse μ -calpain gene reveals an essential role in platelet function. *Mol. Cell. Biol.* 21: 2213-2220.
2. Blair, H.C., et al. 2009. Osteopetrosis with micro-lacunar resorption because of defective integrin organization. *Lab. Invest.* 89: 1007-1017.
3. Dummula, K., et al. 2010. Development of integrins in the vasculature of germinal matrix, cerebral cortex, and white matter of fetuses and premature infants. *J. Neurosci. Res.* 88: 1193-1204.
4. Gassmann, P., et al. 2010. *In vivo* tumor cell adhesion in the pulmonary microvasculature is exclusively mediated by tumor cell—endothelial cell interaction. *BMC Cancer* 10: 177.
5. Ma, T., et al. 2010. Regulation of sealing ring formation by L-plastin and cortactin in osteoclasts. *J. Biol. Chem.* 285: 29911-29924.
6. Takizawa, H., et al. 2010. Lnk regulates integrin $\alpha\beta 3$ outside-in signaling in mouse platelets, leading to stabilization of thrombus development in vivo. *J. Clin. Invest.* 120: 179-190.
7. Taherian, A., et al. 2011. Differences in integrin expression and signaling within human breast cancer cells. *BMC Cancer* 11: 293.
8. Hung, W.S., et al. 2012. The endocytic adaptor protein Disabled-2 is required for cellular uptake of fibrinogen. *Biochim. Biophys. Acta* 1823: 1778-1788.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Integrin $\beta 3$ (D-11): sc-365679** or **Integrin $\beta 3$ (B-7): sc-46655**, our highly recommended monoclonal alternatives to Integrin $\beta 3$ (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Integrin $\beta 3$ (D-11): sc-365679**.